Center for Nanophase Materials Sciences
CF Beneficial Occupancy Definition (BOD)

Items Completed for Beneficial Occupancy and CD-4A

1. The building structures are complete. All permanent walls, floors, ceiling roofs, structural members, foundations, stairways, and elevator are installed according to specification.

2. All the clean rooms meet their respective clean criteria and are ready for hookup and installation of the tools and hoods.

3. All surface treatments (paint, carpet, tile, protective coatings, etc.) have been properly applied.

4. All doors, windows, lights, etc. have been installed and are functioning properly.

5. The fire alarm and fire suppression systems are fully operational and turned over to the ORNL fire department.

6. All conventional facility utility systems (HVAC, sanitary water, chilled water, electricity, lighting, compressed air, public address, etc.) internal to the building have been installed and operational in their final permanent configuration and accepted for operation. All wiring, piping, pumps, motors, outlets, fixtures, hangers, hardware, etc. are properly installed and complete with no temporary pieces remaining.

7. All utility connections are complete and provide the final required level of service.

8. There shall be a clear path for exterior access to the facility.

9. Minor architectural and utility system punch list items can be outstanding at BOD.

Items Completed after Beneficial Occupancy during Tool and Equipment Installation prior to CD-4B

1. Outstanding Punch list items and final building cleaning will be completed after BOD.

2. System testing and certification of the DI Water System will occur as required supporting the start of operations. *It is not beneficial to run the DI system for several months prior to operations.*

3. Parking lot roads and parking lot lighting. *Scope will be coordinated with SNS and ORNL and will be completed after BOD.*

4. Outside planter and landscaping work. *Scope dependent on the weather and the spring growing season.*

5. Lab equipment, casework, and overhead service carriers' installations and their utility hookup. *Scope is outside the CNMS General Construction Contractor's scope. Installation will occur after BOD is received from the contractor.*

6. Office furniture installation. *Scope is outside the CNMS General Construction Contractor's scope. Installation will occur after BOD is received from the contractor.*

7. Installation of the outside nitrogen tank. *This tank will be leased and installed just prior to operations.*

8. Cleanroom tools, hoods, benches and equipment and their utility hookup. *Scope is outside the CNMS General Construction Contractor's scope. Installation will occur after BOD is received from the contractor.*

9. Servers, computers, A/V and telecommunications installation internal to the building. *Scope is outside the CNMS General Construction Contractor's scope. Installation will occur after BOD is received from the contractor.*

10. Completion of systems commissioning and the issuance of the final commissioning report will be after BOD. An interim commissioning report will be issued prior to BOD.

11. Some systems and component training will be included as part of the punch list items for General Contractor to be completed after BOD.

12. Turnover of all red-lined as-built drawings and all the required documentation such as operations/maintenance manuals and /or instructions that are necessary to operate and maintain the building and its systems. *This will be included as part of the punch list items for the General Contractor.*

Beneficial Occupancy is the stage in the progress of the work when the facility is sufficiently complete in accordance with the construction subcontract documents so that the owner can occupy the facility. The determination of the acceptance of the CNMS facility for beneficial occupancy will be accomplished by a joint walk through inspection by the ORNL and DOE project managers and project directors.

Approvals:

CNMS CF Project Manager — Date 3/18/05

CNMS Project Director — Date 3/18/05

CNMS DOE Project Director — Date 3/21/05